BEST AVAILABLE COPY

PCT/SG2003/000276
Received 28 June 2005

each of the plurality of stored data point sequences in the database.

- 25. Computer usable medium comprising a computer program code that is configured to cause at least one processor to execute on or more functions for raising a query to compare an input melody with a plurality of melodies each stored in a database as a stored sequence of points in a value-run domain by: (a) converting the input melody to a pitch-time series; (b) approximating the pitch-time series to a sequence of line segments in a time domain; (c) mapping the sequence of line segments in the time domain into a sequence of points in a value-run domain; and (d) comparing the sequence of points in the value-run domain for the input melody with each of the stored sequence of points in the value run domain of the plurality of melodies to determine a stored melody of the plurality of melodies that matches the input melody. 26. A method for raising a query to compare an input melody with a plurality of 20 melodies each stored in a database and stored as a melody-skeleton, the method comprising: (a) converting the input melody to an input melody skeleton by: converting the input melody to a pitch-time series; (i) (ii) approximating the pitch-time series to a sequence of line 25 segments in a time domain; (iii) mapping the sequence of line segments in the time domain into a sequence of points in a value-run domain; and using extreme points in the sequence of points to form the (iv) 30 input melody skeleton; and comparing the input melody skeleton with the melody skeleton of (b) each of the plurality of melodies to determine a stored melody of the plurality of melodies that matches the input melody.
- 35 27. A method as claimed in claim 26, wherein each of the melody skeletons of the plurality of stored melodies is formed by:
 - (a) converting the stored melody to a pitch-time series;

BEST AVAILABLE COPY

- approximating the pitch-time series to a sequence of line segments in a time domain;
- (c) mapping the sequence of line segments in the time domain into a sequence of points in a value-run domain; and
- (d) using extreme points in the sequence of points to form the melody skeleton.
- 28. A method as claimed in claim 26, wherein pitch values are measured as relative pitch, in semitones; and in step (a) a non-pitch part is replaced by an immediately previous pitch value.
- 29. A method as claimed in claim 27, wherein in step (a) a non-pitch part is replaced by an immediately previous pitch value; and pitch values are measured as relative pitch, in semitones
- 30. A method as claimed in claim 26, wherein non-extreme points in the sequence of points are not considered in the matching process.
- 31. A method as claimed in claim 27, wherein non-extreme points in the sequence of points are not considered in the matching process.

.25

10

15